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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,397	10/23/2003	Jacob Cherian	016295.1469 (DC-05355)	8479
23640	7590	03/23/2006	EXAMINER	
BAKER BOTTS, LLP 910 LOUISIANA HOUSTON, TX 77002-4995			ROJAS, MIDYS	
			ART UNIT	PAPER NUMBER
			2185	
DATE MAILED: 03/23/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/692,397	Applicant(s) CHERIAN, JACOB	
	Examiner Midys Rojas	Art Unit 2185	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/23/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 10/23/03 has been considered by the examiner.

Drawings

2. The drawings received on 10/23/03 have been accepted by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Horst et al. (6,549,977).

Regarding Claim 1, Horst discloses a method for volume manager based redundant array of independent disks (RAID) creation, comprising: obtaining information on a data portion of a disk RAID volume (cache 132 receives data received from host before it has been written, Col. 5, lines 48-53); verifying that disks of the RAID are zeroed (activity bins are zeroed on demand before the first write, thus ensuring that they are zeroed, Col. 3, lines 19-24); aborting RAID creation if the disks are not zeroed (array is only created when the array and its disk drives are prepared for use... and this occurs when they are zeroed; therefore, RAID creation does not occur until the arrays are zeroed, Col. 18, lines 5-58); monitoring input/output (I/O) operations

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(by array controller 124) between an information handling system volume manager (I/O transfer and host interface circuitry 130) and an information handling system disk driver (122); intercepting all I/O operations between the volume manager and the disk driver (by array controller 124); if an intercepted I/O operation is a write operation to the data portion of the RAID volume, returning a success status to a requesting application (controller sends queued completion interrupts to host, Col. 7, lines 38-55); if an intercepted I/O operation is a read operation of the data portion of the RAID volume, returning a zeroed buffer to a requesting application (Col. 3, lines 34-38); and if an intercepted I/O operation is a non-data portion access I/O operation, passing the non-data portion access I/O operation to the disk driver for processing (access to lookup table within RAM 228 are allowed during system operation, Col. 12, lines 44-57).

Regarding Claim 2, Horst discloses the method further comprising initializing creation of a parity based RAID wherein RAID-5 is a parity based RAID (Col. 5, lines 35-38).

Regarding Claim 3, Horst discloses the method further comprising creating a RAID-5 parity based RAID (Col. 5, lines 35-38).

Regarding Claim 4, Horst discloses an information handling system, comprising at least one processor (124); a memory operably associated with the processor (cache 132); at least three information storage devices operably coupled to the memory and the processor (110); and a program of instructions storable in the memory and executable by the processor, the program of instructions operable to intercept input/output (I/O) operations during creation of a redundant array of independent disks (RAID) on the information storage devices (interception being done by array controller 124), process I/O operations directed to accessing RAID disk structures (Col.

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3, lines 34-38), process I/O operations directed to accessing RAID configuration information (access to lookup table within RAM 228 are allowed during system operation, Col. 12, lines 44-57) and provide for processing of I/O operations directed to accessing a data portion of the RAID (cache 132 receives data received from host before it has been written, Col. 5, lines 48-53; array is only created when the array and its disk drives are prepared for use... and this occurs when they are zeroed; therefore, RAID creation does not occur until the arrays are zeroed, Col. 18, lines 5-58; controller sends queued completion interrupts to host, Col. 7, lines 38-55).

Regarding Claim 5, Horst discloses the information handling system further comprising the program of instructions operable to intercept I/O instructions between a volume manager 130 and a disk driver of the information handling system 122.

Regarding Claim 6, Horst disclose the information handling system further comprising the program of instructions operable to intercept all I/O operations between the volume manager and the disk driver during RAID creation (see abstract, the method of the invention provides reductions in RAID volume creation times).

Regarding Claim 7, Horst discloses the information handling system further comprising the program of instructions operable to verify that the information storage devices have been zeroed (activity bins are zeroed on demand before the first write, thus ensuring that they are zeroed, Col. 3, lines 19-24).

Regarding Claim 8, Horst discloses the information handling system further comprising the program of instructions operable to respond to read operations of the data portion with a zeroed buffer (Col. 3, lines 34-38).

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Regarding Claim 9, Horst discloses the information handling system further comprising the program of instructions operable to respond to write operations to the data portion with a successful status (controller sends queued completion interrupts to host, Col. 7, lines 38-55).

Regarding Claim 10, Horst discloses the information handling system further comprising the program of instructions operable during creation of a parity-based RAID wherein RAID-5 is a parity based RAID (Col. 5, lines 35-38).

Regarding Claim 11, Horst discloses the information handling system further comprising the program of instructions operable during creation of a RAID-5 parity-based RAID (Col. 5, lines 35-38).

Claim 12 is rejected using the same rationale as that of Claims 1 and 4.

Claim 13 is rejected using the same rationale as that of Claim 9.

Claim 14 is rejected using the same rationale as that of Claim 9.

Claim 15 is rejected using the same rationale as that of Claim 8.

Claim 16 is rejected using the same rationale as that of Claim 8.

Claim 17 is rejected using the same rationale as that of Claim 5.

Claim 20 is rejected using the same rationale as that of Claim 11.

Regarding Claim 18, Horst discloses the computer readable medium further comprising the program of instructions operable to pass to the disk driver for processing, I/O operations associated with configuration of the RAID (access to lookup table within RAM 228 are allowed during system operation, Col. 12, lines 44-57).

Regarding Claim 19, Horst discloses the computer readable medium further comprising the program of instructions operable to pass to the disk driver for processing, I/O operations

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concerning RAID disk structures (access to lookup table within RAM 228 are allowed during system operation, Col. 12, lines 44-57).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Midys Rojas whose telephone number is (571) 272-4207. The examiner can normally be reached on M-F 5:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (571) 272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Midys Rojas
Midys Rojas
Examiner
Art Unit 2185

MR

Mano Padmanabhan
3/20/06
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SUPERVISORY PATENT EXAMINER